IN THE CLAIMS:

Please cancel claims 1-51 without prejudice or disclaimer, and substitute new claims 52-102 therefor as follows:

Claims 1-51 (Cancelled).

52. (New) A tyre for a vehicle wheel comprising:

a carcass structure shaped in a substantially toroidal configuration, the opposite lateral edges of which are associated with respective right-hand and left-hand bead wires to form respective beads;

a belt structure applied in a radially external position with respect to said carcass structure;

a tread band radially superimposed on said belt structure;

at least one layer of crosslinked elastomeric material applied in a radially internal position with respect to said tread band; and

a pair of sidewalls applied laterally on opposite sides with respect to said carcass structure,

wherein said at least one layer of crosslinked elastomeric material has the following characteristics:

a dynamic elastic modulus, measured at 70°C, not lower than 20 MPa; and a ratio between tensile modulus at 100% elongation and tensile modulus at 10% elongation not lower than 1.5.

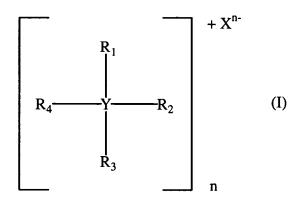
- 53. (New) The tyre for a vehicle wheel according to claim 52, wherein said at least one layer of crosslinked elastomeric material has a dynamic elastic modulus, measured at 70°C, of 25 MPa to 50 MPa.
- 54. (New) The tyre for a vehicle wheel according to claim 52, wherein said at least one layer of crosslinked elastomeric material has a ratio between tensile modulus at 100% elongation and tensile modulus at 10% elongation of 2 to 5.
- 55. (New) The tyre for a vehicle wheel according to claim 52, wherein said at least one layer of crosslinked elastomeric material has a dynamic elastic modulus, measured at 23°C, not lower than 30 MPa.
- 56. (New) The tyre for a vehicle wheel according to claim 55, wherein said at least one layer of crosslinked elastomeric material has a dynamic elastic modulus, measured at 23°C, of 35 MPa to 70 MPa.
- 57. (New) The tyre for a vehicle wheel according to claim 52, wherein said at least one layer of crosslinked elastomeric material has a percentage variation of tensile modulus at 10% elongation, measured in a direction substantially parallel to the equatorial plane of the tyre, with respect to tensile modulus at 10% elongation, measured in a direction substantially perpendicular to the equatorial plane of the tyre, not higher than 20%.
- 58. (New) The tyre for a vehicle wheel according to claim 57, wherein said at least one layer of crosslinked elastomeric material has a percentage variation of tensile modulus at 10% elongation, measured in a direction substantially parallel to the equatorial plane of the tyre, with respect to tensile modulus at 10% elongation,

measured in a direction substantially perpendicular to the equatorial plane of the tyre, not higher than 15%.

- 59. (New) The tyre for a vehicle wheel according to claim 58, wherein said at least one layer of crosslinked elastomeric material has a percentage variation of tensile modulus at 10% elongation, measured in a direction substantially parallel to the equatorial plane of the tyre, with respect to tensile modulus at 10% elongation, measured in a direction substantially perpendicular to the equatorial plane of the tyre, not higher than 5%.
- 60. (New) The tyre for a vehicle wheel according to claim 52, wherein said at least one layer of crosslinked elastomeric material has a thickness lower than 2 mm.
- 61. (New) The tyre for a vehicle wheel according to claim 60, wherein said at least one layer of crosslinked elastomeric material has a thickness of 0.5 mm to 1.5 mm.
- 62. (New) The tyre for a vehicle wheel according to claim 52, wherein said at least one layer of crosslinked elastomeric material is placed between said tread band and said belt structure.
- 63. (New) The tyre for a vehicle wheel according to claim 52, wherein said at least one layer of crosslinked elastomeric material is placed between said belt structure and said carcass structure.
- 64. (New) The tyre for a vehicle wheel according to claim 52, wherein said at least one layer of crosslinked elastomeric material is formed by a plurality of coils of a continuous elongated element.

- 65. (New) The tyre for a vehicle wheel according to claim 52, wherein said elastomeric material comprises:
 - (a) at least one diene elastomeric polymer; and
- (b) at least one layered inorganic material having an individual layer thickness of 0.01 nm to 30 nm.
- 66. (New) The tyre for a vehicle wheel according to claim 65, wherein the layered inorganic material has an individual layer thickness of 0.05 nm to 15 nm.
- 67. (New) The tyre for a vehicle wheel according to claim 66, wherein the layered inorganic material has an individual layer thickness of 0.1 nm to 2 nm.
- 68. (New) The tyre for a vehicle wheel according to claim 65, wherein the layered inorganic material is present in the elastomeric material in an amount of 1 phr to 120 phr.
- 69. (New) The tyre for a vehicle wheel according to claim 68 wherein the layered inorganic material is present in the elastomeric material in an amount of 5 phr to 80 phr.
- 70. (New) The tyre for a vehicle wheel according to claim 65, wherein the layered inorganic material is selected from phyllosilicates, smectites, montmorillonite, nontronite, beidellite, volkonskoite, hectorite, saponite, sauconite, vermiculite, halloisite, sericite, or mixtures thereof.
- 71. (New) The tyre for a vehicle wheel according to claim 70, wherein the layered inorganic material is montmorillonite.
- 72. (New) The tyre for a vehicle wheel according to claim 65, wherein the layered inorganic material is treated with a compatibilizer.

73. (New) The tyre for a vehicle wheel according to claim 72, wherein the compatibilizer is selected from the quaternary ammonium or phosphonium salts having general formula (I):



wherein:

Y represents N or P;

 R_1 , R_2 , R_3 and R_4 , which may be identical or different, represent a linear or branched C_1 - C_{20} alkyl or hydroxyalkyl group; a linear or branched C_1 - C_{20} alkenyl or hydroxyalkenyl group; a group - R_5 -SH or - R_5 -NH wherein R_5 represents a linear or branched C_1 - C_{20} alkylene group; a C_6 - C_{18} aryl group; a C_7 - C_{20} arylalkyl or alkylaryl group; a C_5 - C_{18} cycloalkyl group, said cycloalkyl group optionally containing a hetero atom, oxygen, nitrogen or sulphur;

Xⁿ⁻ represents an anion, chlorine ion, sulphate ion or phosphate ion, and n represents 1, 2 or 3.

- 74. (New) The tyre for a vehicle wheel according to claim 65, wherein the diene elastorneric polymer has a glass transition temperature below 20°C.
- 75. (New) The tyre for a vehicle wheel according to claim 74, whrein the diene elastomeric polymer is selected from: natural or synthetic cis-1,4-polyisoprene, 3,4-

polyisoprene, polybutadiene, optionally halogenated isoprene/isobutene copolymers, 1, 3-butadiene/acrylonitrile copolymers, styrene/1,3-butadiene copolymers, styrene/1, 3-butadiene/acrylonitrile copolymers, or mixtures thereof.

- 76. (New) The tyre for a vehicle wheel according to claim 65, wherein the elastomeric material comprises at least 10% by weight with respect to the total weight of the at least one diene elastomeric polymer of natural rubber
- 77. (New) The tyre for a vehicle wheel according to claim 76, wherein the elastomeric material comprises 20% by weight to 100% by weight with respect to the total weight of the at least one diene elastomeric polymer of natural rubber.
- 78. (New) The tyre for a vehicle wheel according to claim 65, wherein the elastorneric material further comprises at least one elastomeric polymer of one or more monoolefins with an olefinic comonomer or derivatives thereof.
- 79. (New) The tyre for a vehicle wheel according to claim 78, wherein the elastomeric polymer is selected from: ethylene/propylene copolyrners, ethylene/propylene/diene copolymers, polyisobutene, butyl rubbers, halobutyl rubbers, or mixtures thereof.
- 80. (New) The tyre for a vehicle wheel according to claim 65, wherein the elastomeric material comprises at least one carbon black filler.
- 81. (New) The tyre for a vehicle wheel according to claim 80, wherein the carbon black filler has a surface area of not less than 20 m²/g (determined by CTAB absorption as described in Standard ISO 6810:1995).

- 82. (New) The tyre for a vehicle wheel according to claim 80, wherein the carbon black filler is present in the elastomeric material in an amount of 0.1 phr to 120 phr.
- 83. (New) The tyre for a vehicle wheel according to claim 82, wherein the carbon black filler is present in the elastomeric material in an amount of 20 phr to 90 phr.
- 84. (New) The tyre for a vehicle wheel according to claim 65, wherein the elastomeric material comprises at least one silane coupling agent.
- 85. (New) The tyre for a vehicle wheel according to claim 84, wherein the silane coupling agent is selected from a group having at least one hydrolizable silane group which may be identified by the following general formula (II):

$$(R)_3Si-C_nH_{2n}-X(II)$$

wherein the groups R, which may be identical or different, are selected from: alkyl, alkoxy or aryloxy groups or from halogen atoms, on condition that at least one of the groups R is an alkoxy or aryloxy group; n is an integer between 1 and 6 inclusive; X is a group selected from: nitroso, mercapto, amino, epoxide, vinyl, imide, chloro, $-(S)_m C_n H_{2n}-Si-(R)_3$ or -S-COR in which m and n are integers between 1 and 6 inclusive and the groups R are defined as above.

86. (New) The tyre for a vehicle wheel according to claim 84, wherein the silane coupling agent is present in the elastomeric material in an amount of 0.01. phr to 10 phr.

- 87. (New) The tyre for a vehicle wheel according to claim 86, wherein the silane coupling agent is present in the elastomeric material in an amount of 0.5. phr to 5 phr.
- 88. (New) The tyre for a vehicle wheel according to claim 65, wherein at least one additional reinforcing filler is present, in an amount of 0.1 phr to 120 phr, in the elastomeric material.
- 89. (New) The tyre for a vehicle wheel according to claim 88, wherein the reinforcing filler is silica.
- 90. (New) The tyre for a vehicle wheel according to claim 88, wherein at least, one silane coupling agent is present.
- 91. (New) The tyre for a vehicle wheel according to claim 52, wherein the tread band is formed by a crosslinked elastomeric material having a dynamic elastic modulus, measured at 23°C, of 5 MPa to 25 MPa.
- 92. (New) The tyre for a vehicle wheel according to claim 91, wherein the tread band is formed by a crosslinked elastomeric material having a dynamic elastic modulus, measured at 23°C, of 7 MPa to 20 MPa.
- 93. (New) The tyre for a vehicle wheel according to claim 52, wherein the tread band is formed by a crosslinked elastomeric material having a dynamic elastic modulus, measured at 100°C, of 3 MPa to 10 MPa.
- 94. (New) The tyre for a vehicle wheel according to claim 93, wherein the tread band is formed by a crosslinked elastomeric material having a dynamic elastic modulus, measured at I00°C, of 3.5 MPa to 8 MPa.

- 95. (New) The tyre for a vehicle wheel according to claim 52, wherein the tread band is formed by a crosslinked elastorneric material having a Tan delta, measured at 23°C, of 0.20 to 0.90.
- 96. (New) The tyre for a vehicle wheel according to claim 95, wherein the tread band is formed by a crosslinked elastomeric material having a Tan delta, measured at 23°C, of 0.30 to 0.70.
- 97. (New) The tyre for a vehicle wheel according to claim 52, wherein the tread band is formed by a crossliriked elastomeric material having a Tan delta, measured at 100°C, of 0.10 to 0.35.
- 98. (New) The tyre for a vehicle wheel according to claim 97, wherein the tread band is formed by a crosslinked elastomeric material having a Tan delta, measured at 100°C, of 0.15 to 0.30.
- 99. (New) The tyre for a vehicle wheel according to claim 52, wherein the tread band is formed by a crosslinked elastomeric material having an IRHD hardness, measured at 23°C, of 65 to 85.
- 100. (New) The tyre for a vehicle wheel according to claim 99, wherein the tread band is formed by a crosslinked elastomeric material having an IRHD hardness, measured at 23°C, of from 70 to 80.
- 101. (New) The tyre for a vehicle wheel according to claim 52, wherein the tread band is formed by a crosslinked elastorneric material having an IRHD hardness, measured at 100°C, of 45 to 75.

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102. (New) The tyre for a vehicle wheel according to claim 101, wherein the tread band is formed by a crosslinked elastomeric material having an IRHD hardness, measured at 100°C, of 55 to 66.